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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,144	07/21/2006	Per-Oskar Persson	1003301-000283	4982
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EXAMINER BAUER, CASSEY D				
ART UNIT 4157		PAPER NUMBER		
NOTIFICATION DATE 11/04/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary**Application No.**

10/587,144

Applicant(s)

PERSSON, PER-OSKAR

Examiner

Cassey Bauer

Art Unit

4157

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-893)
- Paper No(s)/Mail Date 7/24/2006

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. **New corrected drawings** in compliance with 37 CFR 1.121(d) are required in this application because the drawings submitted by applicant are missing leader lines to clearly identify which structure is referenced by each reference character. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.
2. **The drawings are objected to** under 37 CFR 1.83(a) because they fail to show the relationship of the freezer with the cassette and cassette holder/stand. According to the specification and drawings, it is unclear if the freezing apparatus is integrated into the cassette holder, or if it the freezer is a separate, stationary, stand alone apparatus where the entire cassette and cassette holder are inserted and removed, or if the freezer is a walk in freezer found in many restaurants and tractor trailers. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be

removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 2-4, 11 and 12** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 2-4, 11 and 12 are dependent upon claim 1 which claims "a number of intermediate plates". This claim limitation of claim 1 implies that there could be one intermediate plate or more than one. Claims 2-4, 11 and 12 state the claim limitation of "each intermediate plate". This claim limitation implies that there is more than one intermediate plate. Examiner recommends that applicant change the language of claim 1 to read, "A plurality of intermediate plates."

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. **Claims 1-3, 5 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,203,486 Rubbright et al. (Rubbright) in view of Managing Frozen Foods, Christopher J. Kennedy (Kennedy).

In reference to claim 1, Rubbright in view of Kennedy discloses the claimed invention:

Rubbright teaches a cassette, see figure 2 (61, shelf rack) for use in freezing a liquid contained in a plurality of liquid receptacles, figure 2 (49), said freezing comprising inserting the cassette (61) with the liquid receptacles (49) into a freezing tunnel (26) having a streaming cooling medium, column 13 lines 53-55 (chilled air circulation), characterized by comprising:

a bottom plate for supporting a number of the liquid receptacles (49) in a layer, see figure 2 (61), a number of intermediate plates (19) having essentially

the same dimensions as the bottom plate, see figure 2 (61), for placing on a layer of liquid receptacles (49) and supporting a further layer of liquid receptacles (49), and two opposite side walls (59) being rigidly connected to the bottom plate, see figures 2 and 7, for constituting a U-form therewith, so that each intermediate plate (19) when placed on a layer of liquid receptacles (49) will be fixed laterally in relation to the side walls see figure 2 (59).

Rubbright fails to teach keeping the liquid receptacles therein until the liquid in all the liquid receptacles in the cassette is frozen.

Kennedy teaches that freezing is recognized as one of the best methods of preserving food quality, see Kennedy chapter 7 paragraph 1, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the chiller as taught by Rubbright to freeze the foods stored within to inhibit the growth of deteriorative and pathogenic micro-organisms that would otherwise occur in unfrozen, uneaten food as taught by Kennedy chapter 7 paragraph 1.

In reference to claim 2, Rubbright in view of Kennedy discloses the claimed invention including:

A cassette as claimed in claim 1, see rejection of claim 1 above, wherein each intermediate plate (19) has means cooperating with the side walls (59) so that each intermediate plate (19) when placed on a layer of liquid receptacles (49) will be fixed lengthwise in relation to the side walls (59), see figure 19 (281 and 277).

In reference to claim 3, Rubbright in view of Kennedy discloses the claimed invention including:

A cassette as claimed in claim 2, see rejection of claim 2 above, wherein the liquid receptacles (19) are flexible (able to adapt to new different, or changing requirements of the food placed in the receptacle) and each intermediate plate (49) has spacer means, see Rubbright figure 19 (281), determining the distance to the subjacent intermediate plate (49) and the bottom plate, see figure 7.

In reference to claim 5, Rubbright in view of Kennedy discloses the claimed invention:

Rubbright teaches a chiller, see figure 2 (26), for chilling a liquid contained in a plurality of liquid receptacles, Rubbright figure 2 (49), said chiller comprising a cassette (61) for supporting the liquid receptacles (49) and a freezing tunnel, see Rubbright figure 26 (406), for a streaming cooling medium, the cassette (61) with the liquid receptacles (49) being insertable into the freezing tunnel, see figure 26, characterized in that wherein the cassette (61) comprises a bottom plate, see figure 2, for supporting a number of liquid receptacles (49) in a layer and a number of intermediate plates (19) having substantially the same dimensions as the bottom plate, see figure 2, for being placed each on a separate layer of liquid receptacles (49) and each supporting a further layer of liquid receptacles (49), that a cassette holder (9) is provided having a frame (63) for supporting the cassette (61) and a number of intermediate plates (19) separated from the cassette (61), and that the cassette holder (9) is mobile for movement from a station for loading of the cassette (61) with the liquid

receptacles (49) and the intermediate plates (19) to the freezing tunnel (406) for inserting the loaded cassette (61) therein.

Rubbright fails to teach wherein the chiller is a freezer.

Kennedy teaches that freezing is recognized as one of the best methods of preserving food quality, see Kennedy chapter 7 paragraph 1, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the chiller as taught by Rubbright to freeze the foods stored within to inhibit the growth of deteriorative and pathogenic micro-organisms that would otherwise occur in unfrozen, uneaten food as taught by Kennedy chapter 7 paragraph 1.

In reference to claim 9, Rubbright in view of Kennedy discloses the claimed invention

A freezer as claimed in claim 5, see rejection of claim 5 above, wherein the cooling medium of the freezing tunnel is air, see Rubbright column 12 line 60.

8. **Claims 4, 11 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubbright in view of Kennedy as applied to claims 1, 2 and 3 respectively in further view of EP 0560632A2 Renzi (Renzi).

In reference to claims 4, 11, and 12, Rubbright in view of Kennedy in further view of Renzi discloses the claimed invention:

Rubbright in view of Kennedy teaches a cassette as claimed in claims 1, 2 and 3 respectively, see rejection of claims 1, 2 and 3 above, but fails to teach

wherein each intermediate plate and the bottom plate have a number of full length ducts extending in the plane of the plate.

Renzi teaches a freeze drying shelf (Renzi figure 1) with a plurality of ribs defining full length flow channels (ducts) in the plane of the shelf for circulating a heat exchange fluid, see Renzi 57. Since Renzi teaches that such a construction is common, see Renzi column 1 lines 43-57, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the intermediate plates as taught by Rubbright and modified by Kennedy with full length ducts extending in the plane of the plate to form flow channels for the heat exchange fluid.

9. **Claims 6, 7 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubbright in view of Kennedy as applied to claims 5 and 6 respectively , and further in view of US 3,797,842 Swick, Jr et al. (Swick).

In reference to claim 6, Rubbright in view of Kennedy in further view of Swick teaches the claimed invention:

Rubbright in view of Kennedy teaches a freezer as claimed in claim 5, see rejection of claim 5 above, wherein the cassette holder (9) has a stand, see Rubbright figure 20.

Rubbright in view of Kennedy fails to teach wherein the stand places the intermediate plates in a sloping or substantially vertical position in contact with each other and successively displaced in height.

Swick teaches a food transfer and storage stand, see Swick figures 1-3, with intermediate plates (14) for holding liquid receptacles (52). Swick further teaches placing the intermediate plates in a sloping or substantially vertical position in contact with each other and successively displaced in height, see figure 2. Since Swick teaches a cart that facilitates easy loading and removal of liquid receptacles, see Swick column 1 lines 1-10, it would have been obvious to modify the freezer as taught by Rubbright and modified by Kennedy by placing the intermediate plates in a sloping or substantially vertical position in contact with each other and successively displaced in height as taught by Swick to expedite handling of various food products as taught by Swick column 1 lines 10-15.

In reference to claim 7, Rubbright in view of Kennedy in further view of Swick teaches the claimed invention including:

A freezer as claimed in claim 6, see rejection of claim 6 above, wherein the frame (9) of the cassette holder (61) is equipped with wheels (67).

In reference to claim 10, Rubbright in view of Kennedy in further view of Swick teaches the claimed invention:

Rubright in view of Kennedy teaches a freezer as claimed in claim 6, see rejection of claim 6 above, but fails to teach wherein the stand (bottom of Rubbright figure 20) for placing the intermediate plates is releasable from the frame of the cassette holder (9).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the stand as taught by Rubbright and modified by Kennedy releasable from the cassette holder, since it has been held that constructing an a formerly integral structure in various elements involves only routine skill in the art. See MPEP 2144.04 9 (c).

10. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Rubbright in view of Kennedy as applied to claim 5 above, and further in view of US 4,655,466 Hanaoka (Hanaoka).

In reference to claim 8, Rubbright in view of Kennedy in further view of Hanaoka

teaches the claimed invention:

Rubbright in view of Kennedy teaches a freezer as claimed in claim 5, see rejection of claim 5 above, but fails to teach the freezer further comprising lifting equipment.

Hanako teaches a cart comprising lifting equipment, see Hanako figures 1 and 2. Since Hanako teaches that hand carts comprising lifting equipment is common, see Hanako column 1 lines 15-24, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the freezer as taught by Rubbright as modified by Kennedy with lifting equipment to facilitate easy loading and unloading of the cassette.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 4,285,391 Bourner discloses a food handling cart with similar structure to applicants claim language, US 3,576,650 Underwood et al. discloses flexible liquid receptacles, US 5,927,100 discloses a similar freezing device to the freezer claimed by applicant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cassey Bauer whose telephone number is (571)270-7113. The examiner can normally be reached on Mon-Thurs: 7-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef can be reached on (571)272-5026. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/587,144
Art Unit: 4157

Page 12

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/Zelalem Eshete/
Primary Examiner, Art Unit 3748